Permit Writer	Jonathan Carney
Email Address	Jonathan.W.Carney@wv.gov
Company Name	CNX Gas Company, LLC
Company ID	041-00051
Facility Name	Rohrbaugh Station
Permit Number	R13-3357
County	Lewis
Newspaper	The Weston Democrat 269-1600
Company Contact & Email	Craig Neal craigneal@consolenergy.com
Environmental Contact Email Address	Jesse Hanshaw jhanshaw@slrconsulting.com
Regional Office (if applicable)	Fairmont
New or Modified Source?	New
Construction, Modification, or Relocation?	Construction
Type of Facility	natural gas compressor station
"Located" or "To Be Located"?	Located
Place where I can find electronic versions of your notice, engineering evaluation, and draft permit	Q:\AIR_QUALITY\J_Carney\041-00051_CNX Gas Company LLC -Rohrbaugh

publish Wed Apr 12 2017
30 days Fri May 12 2017

emails prepped

INTERNAL PERMITTING DOCUMENT TRACKING MANIFEST

Company Name CNX Gas Company LLC - Rohrbaugh Station

Permitting Action Number R13-3357 Total Days_____ DAQ Days_____

Permitting Action:

- ○ Permit Determination
- ○ General Permit
- ○ Administrative Update
- ○ Temporary
- ○ Relocation
- ☑ Construction
- ○ Modification
- ○ PSD (Rule 14)
- ○ NNSR (Rule 19)

Documents Attached:

- ☑ Engineering Evaluation/Memo
- ☑ Draft Permit
- ☑ Notice
- ○ Denial
- ○ Final Permit/General Permit Registration
- ○ Completed Database Sheet
- ○ Withdrawal
- ○ Letter
- ○ Other *(specify)*_____

Date	From	To	Action Requested
3/13/17	Jonathan Carney	Bev McKeone	Review to go to Public Notice
3/22	Bev	Jonathan	Use Section 6 from G33 for gas Engine language.
3/28/17	Jonathan Carney	Bev McKeone	Addition - Return Return for Review & to go to Pub. Notice
3/31	Bev	Jonathan	Go to Notice
4/3/2017	Jonathan Carney	Sandie Adkins	Go to Notice

NOTE: Retain a copy of this manifest for your records when transmitting your document(s).

Permit Writer	Jonathan Carney
Email Address	Jonathan.W.Carney@wv.gov
Company Name	CNX Gas Company, LLC
Company ID	041-00051
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Company Contact & Email	Craig Neal craigneal@consolenergy.com
Environmental Contact Email Address	Jesse Hanshaw jhanshaw@slrconsulting.com
Regional Office (if applicable)	Fairmont
New or Modified Source?	New
Construction, Modification, or Relocation?	Construction
Type of Facility	natural gas compressor station
"Located" or "To Be Located"?	Located
Place where I can find electronic versions of your notice, engineering evaluation, and draft permit	Q:\AIR_QUALITY\J_Carney\041-00051_CNX Gas Company LLC -Rohrbaugh

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On, January 23, 2017 CNX Gas Company, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to construct a compressor station facility located in Lewis County, WV at 39.071700 latitude and -80.586510 longitude. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as Permit R13-3357.

The following emissions will be authorized by this permit action: Carbon Monoxide, 4.44 TPY; Nitrogen Oxides, 2.60 TPY; Particulate Matter less than 10 microns, 0.07 TPY; Volatile Organic Compounds, 0.75 TPY; Total Hazardous Air Pollutants, 0.30 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on TBD by Sandra. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed construction will meet all state and federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Jonathan Carney
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1203
FAX: 304/926-0478

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx

west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Phone: (304) 926-0475
Fax: (304) 926-0479

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

BACKGROUND INFORMATION

Application No.:	13-3357
Plant ID No.:	041-00051
Applicant:	CNX Gas Company, LLC
Facility Name:	Rohrbaugh Booster Station
Location:	Camden, Lewis County
NAICS Code:	211111
Application Type:	Construction
Received Date:	January 23, 2017
Engineer Assigned:	Jonathan Carney
Fee Amount:	$2,000.00
Date Received:	January 24, 2017
Complete Date:	February 17, 2017
Due Date:	May 18, 2017
Applicant Ad Date:	January 25, 2017
Newspaper:	The Weston Democrat
UTM's:	Easting: 472.134 Northing: 4,157.092 Zone:17
Description:	This is an after the fact permit to construct one 95 HP compressor and one liquids storage tank. The 95 HP compressor engine is subject to 40CFR60 Subpart JJJJ requirements due to its year of manufacture.

DESCRIPTION OF PROCESS

The following description is taken from Application 13-3357:

CNX Gas Company LLC is applying for an after the fact construction permit in accordance with 45CSR13, for the operation of the Rohrbaugh Booster Station. As a result of DAQ guidance, the engine at this site has been identified as subject to New Source Performance Standards (NSPS) under subpart JJJJ. The small compressor engine is a 95 HP, 4SRB unit that was manufactured in September of 2008, which puts it two months over the applicability timeframe for JJJJ (7-1-2008). The site was originally purchased from Dominion E&P on April 30, 2010.

The Rohrbaugh booster collects gas from conventional gas wells in the area and sends it to a sales line. The small natural gas fired engine will utilize a NSCR catalyst in order to assure compliance with the NSPS regulation. The engine will conduct initial

compliance testing upon permit approval. Additionally, the Rohrbaugh site consists of inlet and outlet gas piping and liquid knock out separators as well as gas metering instrumentation. Liquids removed from the gas stream are sent to a 50 bbl storage vessel. Since the tank was installed prior to August 23, 2011 the storage vessel commenced construction prior to NSPS OOOO applicability. The tank's emissions were estimated based on 1 turnover per year and using representative results predict very low emissions, less than 0.04 tpy VOCs. Additionally, the 1 turnover per year throughput rate takes into account a safety factor of 10 when compared to actual production records.

In accordance with DAQ guidance, the facility wide emission potentials include truck loading, fugitive equipment leaks, and compressor blowdowns in addition to the typical engine and storage vessel point source emissions. The calculations summarized within this application show the facility wide total emissions to be no more than 2.60 tpy NOx, 4.44 tpy CO, and 2.40 tpy VOC, with total HAPs slightly less than 0.3 tpy from formaldehyde.

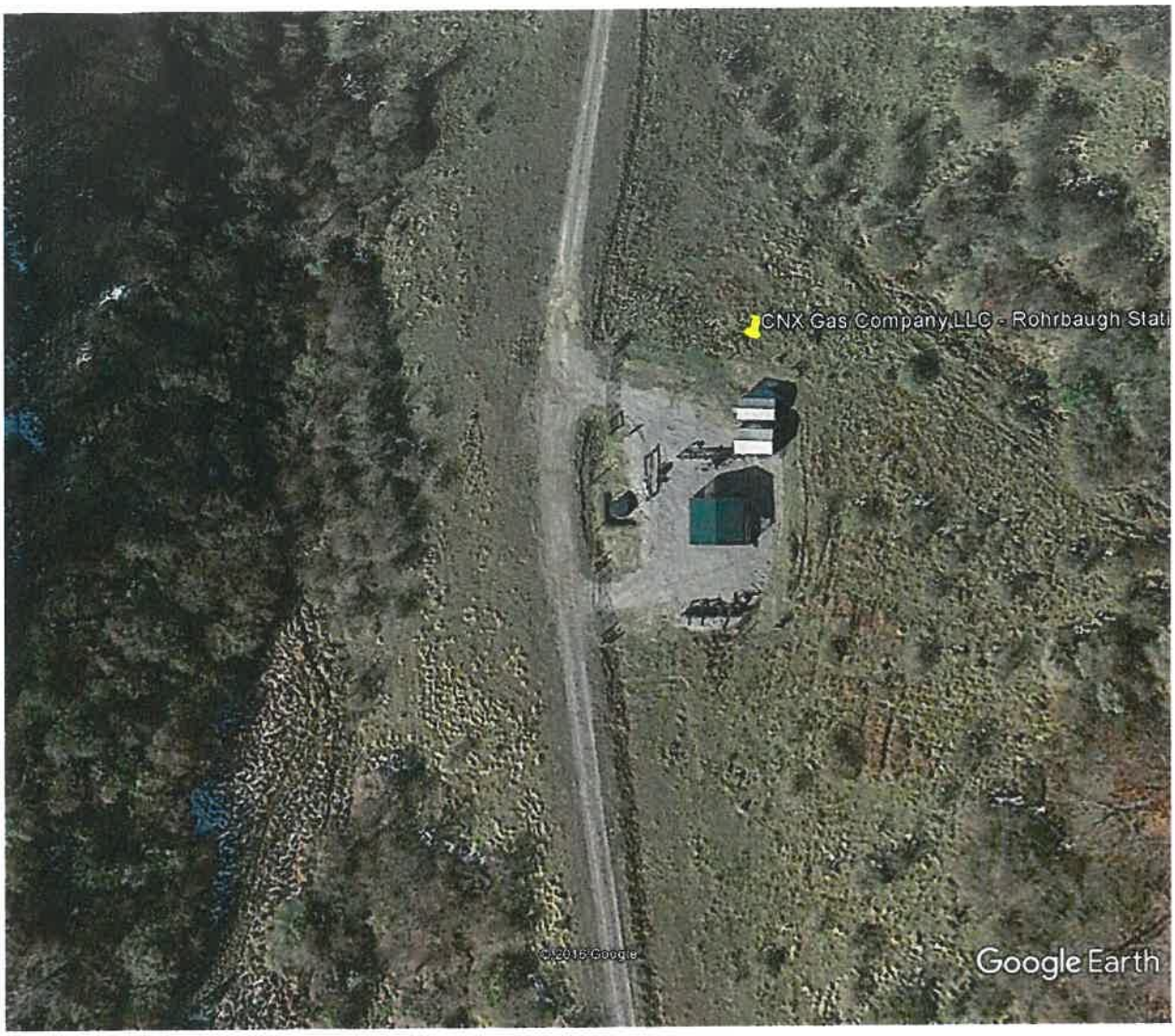
SITE INSPECTION

A full on-site inspection was performed on November 4, 2016 by DAQ compliance and enforcement inspector, John Moneypenny. The inspector noted the following in his inspection report:

> **This site belongs to CNX Gas. Engine is a 95 hp CAT G3304 with catalyst bed installed. SN NF403357. This engine was installed in 2011 and manufactured on September 13, 2008. Since it was manufactured after July 1, 2008, it is subject to the requirements of NSPS JJJJ. These requirements include doing an initial performance test, which has not been conducted. Since the engine is subject to substantive requirements of a subpart, it thus required a pre-construction permit per 45 CSR 13, which was not received. A NOV will be drafted to address these violations.**

A notice of violation (NOV) was issued on January 13, 2017 and a response to the NOV was received on February 17, 2017.

From Charleston: I-79 North to Weston exit state route 20 west to Camden. At Camden Post Office, turn right on to Churchville Road, continue 2.3 miles to left turn on Kemper Hollow Road. First locked gate is 0.3 mi. on left, 2nd locked gate is 0.5 mi. up hill at Rohrbaugh Station



ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity	Type and Date of Change	Control Device
CE-1	E01	Reciprocating Engine/Integral Compressor; Caterpillar G3304 NA; 4SRB	2011	95 hp	Existing	C1

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity	Type and Date of Change	Control Device
T-1	E02	Pipeline Liquids AST	Pre - August 2011	2,100 gal	Existing	NA
TL-1	E03	Pipeline Liquids – Truck Loading	2011	2,100 gal/yr	Existing	NA

The following table indicates the control device efficiency that are required for this facility:

Emission Unit	Pollutant	Control Device	Control Efficiency
CE-1 Caterpillar/G3304 NA	NOx	NSCR	79.5
	CO		64.9

The total facility PTE (excluding fugitives) for the Station is shown in the following table:

Pollutant	R13-3357 PTE (tons/year)
Nitrogen Oxides	2.60
Carbon Monoxide	4.44
Volatile Organic Compounds	0.75
Particulate Matter-10/2.5	0.07
Formaldehyde	0.25
Total HAPs	0.30
Carbon Dioxide Equivalent	437.02

Maximum detailed controlled point source emissions were calculated by CNX Gas Company LLC and checked for accuracy by the writer and are summarized in the tables on the next page.

				Maximum Controlled* PTE	
Emission Unit ID	Emission Point ID	Emission Unit Description	All Regulated Pollutants	lb/hr	tpy
CE-1	E01	4SRB RICE CAT	NO_x	0.59	2.60
			CO	1.01	4.44

		G3304 NA	VOC	0.11	0.48
			SO_2	0.01	0.01
			PM_{10}	0.02	0.07
			CH2O	0.06	0.25
			HAPs	0.07	0.29
			CO_2e	99.78	437.02
T-1	E02	Pipeline Liquids AST	VOC	0.01	0.04
Truck Loading			VOC		0.00
Compressor Blowdown			VOC		0.23
Fugitive			VOC		1.65
			CO_2e		38.39

*The emissions from T-1 are uncontrolled

REGULATORY APPLICABILITY

45CSR4 - *To Prevent and Control the Discharge of Air Pollutants Into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors*

The facility is subject to the requirements of 45CSR4 and shall not allow the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

45CSR13 - *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation*

The facility is subject to 45CSR13 because is subject to a substantive requirement of an emission control rule promulgated by the Secretary (40 CFR 60 Subpart JJJJ,)

CNX Gas Company LLC paid the appropriate fee of $2000.00 on January 24, 2017 and published the required legal advertisement for a construction permit application in the *The Weston Democrat* on January 25, 2017.

45CSR16 - *Standards of Performance for New Stationary Sources Pursuant to 40CFR60*

45CSR16 incorporates by reference the standards of performance for new stationary sources (40CFR60). Rohrbaugh Station is subject to 40CFR60 Subpart JJJJ and is therefore subject to 45CSR16.

45CSR22 - *Air Quality Management Fee Program*

The facility is subject to the requirements of 45CSR22 and shall pay fees according to the application fee schedule. The proper application fee ($1,000 for construction application fee and $1,000 for additional NSPS fee) $2,000 was received on January 24, 2017.

40CFR60 Subpart JJJJ - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

40CFR60 Subpart JJJJ sets forth emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject spark ignition internal combustion engine. This subpart applies to the one compressor engine, CE-1, because it was manufactured on or after July 1, 2007. Engine CE-1 must comply with the emission standards for field testing in 40 CFR 1048.101(c) HC + NO_x standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. The non-certified engine (CE-1) will have to undergo initial performance testing to demonstrate compliance [40CFR4243(b)(2)i.]

40CFR63 Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines (RICE).*

Subpart ZZZZ applies to stationary RICE at a major or area source of HAP emissions. Subpart ZZZZ applies to the Rohrbaugh Compressor Station as the compressor engine is a new RICE. The engine shall comply with Subpart ZZZZ by complying with 40 CFR Part 60, Subpart JJJJ in accordance with 40 CFR 63.6590(c).

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

The majority of non-criteria regulated pollutants fall under the definition of HAPs which, with some revision since, were 188 compounds identified under Section 112(b) of the Clean Air Act (CAA) as pollutants or groups of pollutants that EPA knows or suspects may cause cancer or other serious human health effects. The Station is classified as an area source of hazardous air pollutants. Listed below is a description of the primary hazardous air pollutants for this facility.

Acetaldehyde
Acetaldehyde is mainly used as an intermediate in the synthesis of other chemicals. It is common in the environment and may be formed in the body from the breakdown of ethanol. Acute (short-term) exposure to acetaldehyde results in effects including irritation of the eyes, skin, and respiratory tract. Symptoms of chronic (long-term) intoxication of acetaldehyde resemble those of alcoholism. Acetaldehyde is considered a probable human carcinogen (Group B2) based on human cancer studies and animal studies that have shown nasal tumors in rats and laryngeal tumors in hamsters.

Benzene
Benzene is found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. EPA has classified benzene as a Group A, human carcinogen.

Toluene
The acute toxicity of toluene is low. Toluene may cause eye, skin, and respiratory tract irritation. Short-term exposure to high concentrations of toluene (e.g., 600 ppm) may produce fatigue, dizziness, headaches, loss of coordination, nausea, and stupor; 10,000 ppm may cause death from respiratory failure. Ingestion of toluene may cause nausea and vomiting and central nervous system depression. `Contact of liquid toluene with the eyes causes temporary irritation. Toluene is a skin irritant and may cause redness and pain when trapped beneath clothing or shoes; prolonged or repeated contact with toluene may result in dry and cracked skin. Because of its odor and irritant effects, toluene is regarded as having good warning properties. The chronic effects of exposure to toluene are much less severe than those of benzene. No carcinogenic effects were reported in animal studies. Equivocal results were obtained in studies to determine developmental effects in animals. Toluene was not observed to be mutagenic in standard studies.

Ethylbenzene
Ethyl benzene is mainly used in the manufacturing of styrene. Acute (short-term) exposure to ethyl benzene in humans results in respiratory effects, such as throat irritation and chest constriction, irritation of the eyes, and neurological effects, such as dizziness. Chronic (long-term) exposure to ethyl benzene by inhalation in humans has shown conflicting results regarding its effects on the blood. Animal studies have reported effects on the blood, liver, and kidneys from chronic inhalation exposure to ethyl benzene. Limited information is available on the carcinogenic effects of ethyl benzene in humans. In a study by the National Toxicology Program (NTP), exposure to ethyl benzene by inhalation resulted in an increased incidence of kidney and testicular tumors in rats, and lung and liver tumors in mice. EPA has classified ethyl benzene as a Group D, not classifiable as to human carcinogenicity.

Xylenes
Commercial or mixed xylene usually contains about 40-65% m-xylene and up to 20% each of o-xylene and p-xylene and ethyl benzene. Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as solvents. Acute (short-term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects. Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported. EPA has classified mixed xylenes as a Group D, not classifiable as to human carcinogenicity. Mixed xylenes are used in the production of ethylbenzene, as solvents in products such as paints and coatings, and are blended into gasoline.

Formaldehyde
Formaldehyde is used mainly to produce resins used in particle board products and as an intermediate in the synthesis of other chemicals. Exposure to formaldehyde may occur by breathing contaminated indoor air, tobacco smoke, or ambient urban air. Acute (short-term) and chronic (long-term) inhalation exposure to formaldehyde in humans can result in respiratory symptoms, and eye, nose, and throat irritation. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. EPA considers formaldehyde a probable human carcinogen (Group B1).

All HAPs have other non-carcinogenic chronic and acute effects. These adverse health effects may be associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect variability in humans such as genetics, age, health status (e.g., the presence of pre-existing disease) and lifestyle. As stated previously, *there are*

no federal or state ambient air quality standards for these specific chemicals. For a complete discussion of the known health effects of each compound refer to the IRIS database located at *www.epa.gov/iris*.

AIR QUALITY IMPACT ANALYSIS

Modeling was not required of this source due to the fact that the facility is not subject to 45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollutants) or 45CSR19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment) as seen in the table listed in the Regulatory Discussion section under 45CSR14/45CSR19.

SOURCE AGGREGATION

"Building, structure, facility, or installation" is defined as all the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person.

The Source Determination Rule for the oil and gas industry was published in the Federal Register on June 3, 2016 and became effective on August 2, 2016. EPA defined the term "adjacent" and stated that equipment and activities in the oil and gas sector that are under common control will be considered part of the same source if they are located on the same site or on sites that share equipment and are within ¼ mile of each other.

"Contiguous or Adjacent" determinations are made on a case by case basis. There are no other equipment and activities in the oil and gas sector that are under common control of CNX Gas Company LLC that are located on the same site or on sites that share equipment and are within ¼ mile of each other.

Because the Station is not located on contiguous or adjacent properties with other facilities under common control, the emissions from this facility shall not be aggregated with other facilities for the purposes of making Title V and PSD determinations.

The Station will operate under NAICS code 211111 (Natural Gas Compressor Station).

MONITORING OF OPERATIONS

The permittee is required to conduct initial performance testing on the compressor engine (CE-1).

The permittee is required to operate and maintain CE-1 in a manner consistent with good air pollution control practice for minimizing emissions.

The permittee is required to maintain records of maintenance performed on the compressor engine and the non-selective catalytic reduction device.

The permittee is required to monitor the throughput of pipeline liquids of the storage tank.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application indicates that the CNX Gas Company LLC natural gas compressor station should meet all the requirements of applicable rules and regulations. Therefore, impact on the surrounding area should be minimized and it is recommended that the facility at the Lewis County location should be granted a 45CSR13 construction permit.

Jonathan Carney
Permit Writer

3/28/2017
DATE

West Virginia Department of Environmental Protection

Jim Justice
Governor

Division of Air Quality

Austin Caperton
Cabinet Secretary

Permit to Construct

R13-3357

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

CNX Gas Company, LLC
Rohrbaugh Station
041-00051

William F. Durham
Director

Issued: DRAFT • *Effective: DRAFT*

Facility Location:	Camden, Lewis County, West Virginia
Mailing Address:	1000 Consol Energy Drive, Canonsburg, PA 15317
Facility Description:	Natural Gas Compressor Station
NAICS Codes:	211111
UTM Coordinates:	472.134 km Easting • 4,157.092 km Northing • Zone 17
Permit Type:	Construction
Description of Change:	The facility consists of one compressor engine and one liquids storage tank along with associated piping.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is not subject to 45CSR30.

Table of Contents

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CE-1	E01	Reciprocating Engine/Integral Compressor; Caterpillar G3304 NA; 4SRB	2011	95 hp	NSCR
T-1	E02	Pipeline Liquids AST	Pre-2011	2,100 gal	NA
TL-1	E03	Pipeline Liquids – Truck Loading	2011	2,100 gal/yr	NA

1.1 Control Devices

Emission Unit	Pollutant	Control Device	Control Efficiency
Reciprocating Engine/Integral Compressor Caterpillar G3304 NA; 4SRB (CE-1)	NO_x	NSCR	79.5%
	CO		64.9%

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NOx**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 μm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM_{10}**	Particulate Matter less than 10μm in diameter
C.S.R. *or* CSR	Codes of State Rules		
DAQ	Division of Air Quality	**Ppb**	Pounds per Batch
DEP	Department of Environmental Protection	**Pph**	Pounds per Hour
		Ppm	Parts per Million
dscm	Dry Standard Cubic Meter	**Ppm_V or ppmv**	Parts per Million by Volume
FOIA	Freedom of Information Act		
HAP	Hazardous Air Pollutant	**PSD**	Prevention of Significant Deterioration
HON	Hazardous Organic NESHAP		
HP	Horsepower	**Psi**	Pounds per Square Inch
lbs/hr	Pounds per Hour	**SIC**	Standard Industrial Classification
LDAR	Leak Detection and Repair		
M	Thousand	**SIP**	State Implementation Plan
MACT	Maximum Achievable Control Technology	**SO_2**	Sulfur Dioxide
		TAP	Toxic Air Pollutant
MDHI	Maximum Design Heat Input	**TPY**	Tons per Year
MM	Million	**TRS**	Total Reduced Sulfur
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour		
		UTM	Universal Transverse Mercator
NA	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
		VOL	Volatile Organic Liquids
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*

2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-3357. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3357, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and 10.3.]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] ***[State Enforceable Only]***

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary

exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

   1. The permit or rule evaluated, with the citation number and language;
   2. The result of the test for each permit or rule condition; and,
   3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded

in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or

contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.1.4 **Record of Malfunctions of Air Pollution Control Equipment.** For the control devices listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.1.5. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be replaced

4.2. Recordkeeping Requirements

4.2.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

4.2.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.2.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

5.0. Source-Specific Requirements [Compressor Engine (CE-1), 40CFR60 Subpart JJJJ Requirements, 40CFR63 Subpart ZZZZ Requirements]

5.1. Limitations and Standards

5.1.1. Maximum emissions from the 95 hp Caterpillar G3304 NA natural gas-fired compressor engine (CE-1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.59	2.60
Carbon Monoxide	1.01	4.44

5.1.2. *Emission Standards.* The engine (CE-1) must comply with the emission standards for field testing for non-emergency stationary SI ICE.

Standards for field testing. Starting in 2007, exhaust emissions may not exceed field-testing standards, as follows:

(1) Measure emissions using the field-testing procedures

(2) The HC + NO_X standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. The permittee is not required to measure nonmethane hydrocarbon emissions or total hydrocarbon emissions for testing to show that the engine (CE-1) meets the emission standards; that is, the permittee may assume HC emissions are equal to zero.

(3) The permittee may apply the following formula to determine alternate emission standards that apply to the engine (CE-1) instead of the standards in paragraph (1) of this section: (HC + NO_X) × $CO^{0.791}$ ≤16.78. HC + NO_X emission levels may not exceed 3.8 g/kW-hr and CO emission levels may not exceed 31.0 g/kW-hr.

5.1.3. *Compliance Demonstration With Emission Standards.* The permittee shall demonstrate compliance with the emission standards specified in 5.1.2 and according to the requirements specified in 5.2, as applicable, and as follows:

(i) The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine (CE-1) in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance.

5.1.4. Periods of start-up and shut-down shall not exceed 30 minutes per occurrence. The permittee shall operate the engine (CE-1) in a manner consistent with good air pollution control practices for minimizing emissions at all times, including periods of start-up and shut-down.

5.1.5. The permittee shall meet the emission standards in 5.1.2. over the entire life of the engine (CE-1).

5.1.6. The permittee may operate the engine (CE-1) on propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used to operate the engine (CE-1) for more than 100 hours per year, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards specified in 5.1.2.

5.1.7 If the permittee modifies or reconstructs the engine (CE-1), the engine (CE-1) must meet the standards in 5.1.2.

5.1.8 If the permittee operates the engine (CE-1) on wellhead gas, the permittee may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP (NO_x+HC 10 g/HP-hr; CO 387 g/HP-hr) due to the presence of high sulfur levels in the fuel. The permittee's request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of after treatment controls and also that the permittee has reasonably made all attempts possible to obtain an engine than will meet the standards without the use of after treatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

5.1.9 It is expected that an air-to-fuel ratio (AFR) controller will be used with the operation of non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

5.1.10 The permittee is required to conduct initial performance testing in 5.1.3. The permittee is not required to conduct subsequent performance testing unless the engine (CE-1) is rebuilt or undergoes major repair or maintenance.

5.2 Testing Requirements

5.2.1. The permittee shall conduct performance tests following the procedures in paragraphs (a) through (f) of this section.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2. [40CFR§60.4244(a)]

b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40CFR§60.4244(b)]

c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]

d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:
ER = Emission rate of NO_X in g/HP-hr.

C_d= Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10−3 = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40CFR§60.4244(d)]

d. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:
ER = Emission rate of CO in g/HP-hr.

C_d= Measured CO concentration in ppmv.

1.164×10−3 = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(e)]

e. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 3)}$$

Where:
ER = Emission rate of VOC in g/HP-hr.

C_d= VOC concentration measured as propane in ppmv.

1.833×10−3 = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(f)]

f. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:
RF_i= Response factor of compound i when measured with EPA Method 25A.

C_{Mi}= Measured concentration of compound i in ppmv as carbon.

C_{Ai}= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:
C_{icorr}= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas}= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:
C_{Peq}= Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

5.3 Notification Reporting and Recordkeeping Requirements

5.3.1. To demonstrate compliance with permit condition 5.1.3, the permittee shall maintain records of the maintenance performed on the engine.

5.3.2. All records required by this section shall be maintained in accordance with section 3.4.1 of this permit.

5.3.3. The permittee shall submit a copy of each performance test, required in section 5.1.3 to the Division of Air Quality within 60 days of completion.

5.3.4. The permittee shall meet the following notification, reporting and recordkeeping requirements.

a. The permittee must keep records of the information in paragraphs (1) through (3) of this section.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.

2. Documentation that the engine meets the emission standards including but not limited to initial performance test results.

b. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

6.0. Source-Specific Requirements [Storage Vessels (T-1)]

6.1. Limitations and Standards

6.1.1. The maximum monthly throughput of pipeline liquids to the 2,100gal storage tanks shall not exceed 2,100 gal/yr.

6.2. Monitoring Requirements

6.2.1. The permittee shall monitor the throughput to the storage vessel (T-1) on a monthly basis.

6.3. Recordkeeping Requirements

6.3.1. The permittee shall maintain a record of the aggregate throughput for the storage vessel (T-1) on a monthly and rolling twelve (12) month total. Said records shall be maintained in accordance with section 3.4.1 of this permit.

7.0. Source-Specific Requirements [Truck Loading (TL-1)]

7.1 Limitations and Standards

7.1.1. The Truck Loading (TL-1) shall be operated in accordance with the plans and specifications filed in Permit Application R13-3357.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

Name & Title (please print or type) _____ Name _____ Title

Telephone No. _____ Fax No. _____

---

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.

Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Dominion Exploration & Production			**Facility:**	Rohrbaugh Station
Region:	8	**Plant ID:**	041-00051	**Application #:**	13-3357
Engineer:	Carney, Jonathan			**Category:**	Gas Comp
Physical Address:	Kemper Hollow Road Camden WV 26338			**SIC:** [1311] OIL AND GAS EXTRACTION - CRUDE PETROLEUM & NATURAL GAS **NAICS:** [211111] Crude Petroleum and Natural Gas Extraction	
County:	Lewis				
Other Parties:	Consultant - Hanshaw, Jesse 304-545-8563 VICE PRES - Dugan, Timothy 724-485-4000				

Information Needed for Database and AIRS
1. Need valid physical West Virginia address with zip

Regulated Pollutants

Summary from this Permit 13-3357

Air Programs		Applicable Regulations
Fee Program	**Fee**	**Application Type**
	$2,000.00	CONSTRUCTION

Notes from Database

Activity Dates

APPLICATION RECIEVED	01/23/2017
APPLICATION FEE PAID	01/24/2017
ASSIGNED DATE	01/24/2017

NON-CONFIDENTIAL

Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 041-00051
Company: Dominion Exploration & Product
Printed: 01/24/2017
Engineer: Carney, Jonathan

Carney, Jonathan W

From: Jesse Hanshaw <jhanshaw@slrconsulting.com>
Sent: Thursday, March 16, 2017 7:04 PM
To: Carney, Jonathan W
Cc: craigneal@consolenergy.com; CarolPhillips@consolenergy.com; Flynn, Patrick; Estanich, Joseph; Nathaniel Lanham
Subject: RE: Draft permit for CNX Gas Company, LLC-Rohrbaugh Station

Mr. Carney,

Thank you for the opportunity to comment on the predraft permit for the Rohrbaugh Station. Everything appears to be in good order and there are no comments at this time. We certainly appreciate your attention to detail and look forward to work with you to complete this permitting action.

Thanks Again,
Jesse

Jesse Hanshaw
Principal Engineer
SLR International Corporation

Cell: 304-545-8563
Office: 681-205-8949
Email: jhanshaw@slrconsulting.com
8 Capitol Street Suite 300, Charleston, WV, 25301, United States

www.slrconsulting.com

From: Carney, Jonathan W [mailto:Jonathan.W.Carney@wv.gov]
Sent: March 13, 2017 9:37 AM
To: craigneal@consolenergy.com
Cc: Jesse Hanshaw
Subject: Draft permit for CNX Gas Company, LLC-Rohrbaugh Station

Mr. Neal,

Please review the attached draft permit and evaluation and provide your written comments via e-mail to me by Thursday, March 16, 2017. Thank you.

Jonathan Carney, P.E.
Environmental Protection
NSR Air Permitting

(304) 926-0499 ext. 1203
Jonathan.W.Carney@wv.gov
601 57th St SE
Charleston, WV 25304

Carney, Jonathan W

From: Carney, Jonathan W
Sent: Friday, February 17, 2017 2:48 PM
To: 'craigneal@consolenergy.com'
Cc: McKeone, Beverly D; 'jhanshaw@slrconsulting.com'
Subject: WV DAQ NSR Permit Application Complete for Dominion Exploration & Production

RE: Application Status: Complete
Dominion Exploration & Production
Rohrbaugh Station
Permit Application R13-3357
Plant ID No. 041-00051

Mr. Craig Neal,

Your application for a Construction permit for a Natural Gas Compressor Station was received by this Division on January 23, 2017 and assigned to the writer for review. Upon review of said application, it has been determined that the application is complete and, therefore, the statutory review period commenced on February 17, 2017.

In the case of this application, the agency believes it will take approximately 90 days to make a final permit determination.

This determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination.

Should you have any questions, please contact Jonathan Carney at (304) 926-0499 ext. 1203 or reply to this email.

Jonathan Carney, P.E.
Environmental Protection
NSR Air Permitting

(304) 926-0499 ext. 1203
Jonathan.W.Carney@wv.gov
601 57th St SE
Charleston, WV 25304

February 3, 2017

Jon Carney
Permit Engineer
WVDEP, Division of Air Quality
601 – 57th Street
Charleston, West Virginia 25304

Re: Class 1 Legal Ad for a Construction Permit
CNX Gas Company LLC, Rohrbaugh Station, Lewis County, WV

Dear Mr. Carney,

On behalf of CNX Gas Company LLC, SLR International Corporation has attached the original affidavit for the Class I Legal Advertisement pertaining to a construction permit for Rohrbaugh Station, located in Lewis County, WV.

The public notice was published by *The Weston Democrat* on January 25, 2017. If you require additional information, please feel free to contact me at (681) 205 8949 or by e-mail cboggess@slrconsulting.com.

Sincerely,
SLR International Corporation

Chris Boggess
Associate Engineer
SLR International Corporation

Attachment: Published Legal Advertisement Affidavit

AFFIDAVIT OF PUBLICATION

STATE OF WEST VIRGINIA,

COUNTY OF LEWIS, to wit:

I, Donna Prunty, being first duty sworn upon my oath, do depose and say that I am Legal Clerk of The Weston Democrat, Inc., a corporation, publisher of the newspaper entitled *The Weston Democrat*, a Democratic newspaper; that I have been duty authorized by the board of directors of such corporation to execute this affidavit of publication; that such newspaper has been published for more than one year prior to publication of the annexed notice described below; that such newspaper is regularly published weekly; for at least fifty weeks during the calendar year; in the Municipality of Weston, Lewis County, West Virginia; that such newspaper is a newspaper of "general circulation", as that term is defined in article three, chapter fifty-nine of the Code of West Virginia, 1931, as amended, within the publication area or areas of the aforesaid municipality and Lewis County; that such newspaper averages in length four or more pages exclusive of any cover, per issue; that such newspaper is circulated to the general public at a definite price or consideration; that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature, and for the current happenings, announcements, miscellaneous reading matters, advertisements, and other notices; that the annexed notice of CNX Gas Air Quality Permit Notice was duty published in said newspaper once a week for 1 weeks. (Class I), commencing with the issue of the 25 day of January, 2017 and ending with the issue of the 25 day of January, 2017; that said annexed notice was published on the following dates:

January 25, 2017

; and the cost of publishing said annexed notice as aforesaid was $62.16; total number of words: 518.

_____, Legal Clerk

Taken, subscribed and sworn to before me in my said county this 25 day of January, 2017.

Natalia K. Villers

My commission expires April 8th, 2024.
Notary Public in Lewis County, West Virginia.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Natalia L. Villers
1103 N. River Avenue
Weston, WV 26452
My commission expires April 8, 2024

RECEIVED
FEB 03 2017
WV DEP / DIV OF AIR QUALITY

LEGAL ADVERTISEMENT **LEGAL ADVERTISEMENT**

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that CNX Gas Company LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit, for a natural gas compressor station located off Left Fork Rd. near Camden, in Lewis County, West Virginia. The latitude and longitude coordinates are 39.07170 and -80.58651.

The applicant estimates the potential to discharge of the following Regulated Air Pollutants will be:

$PM/PM_{10}/PM_{2.5}$	0.07
NO_X	2.60
CO	4.44
VOCs	2.40
Formaldehyde	0.25
Total HAPs	0.29

The operations are after the fact and have become necessary due to 40 CFR 60, Subpart JJJJ applicability. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 25 day of January, 2017.

By: CNX Gas Company LLC
Craig Neal, Vice President Gas Operations
1000 Consol Energy Drive, Canonsburg, PA 15317
Legal 229 (Jan. 25)

Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Dominion Exploration & Production			**Facility:**	Rohrbaugh Station
Region:	8	**Plant ID:**	041-00051	**Application #:**	13-3357
Engineer:	Carney, Jonathan			**Category:**	Gas Comp
Physical Address:	Kemper Hollow Road Camden WV 26338			**SIC:** [1311] OIL AND GAS EXTRACTION - CRUDE PETROLEUM & NATURAL GAS **NAICS:** [211111] Crude Petroleum and Natural Gas Extraction	
County:	Lewis				
Other Parties:	Consultant - Hanshaw, Jesse 304-545-8563 VICE PRES - Dugan, Timothy 724-485-4000				

Information Needed for Database and AIRS
1. Need valid physical West Virginia address with zip

Regulated Pollutants

Summary from this Permit 13-3357

Air Programs		**Applicable Regulations**
Fee Program	**Fee**	**Application Type**
	$2,000.00	CONSTRUCTION

Notes from Database

Activity Dates

APPLICATION RECIEVED	01/23/2017
APPLICATION FEE PAID	01/24/2017
ASSIGNED DATE	01/24/2017

NON-CONFIDENTIAL

Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 041-00051
Company: Dominion Exploration & Product
Printed: 01/24/2017
Engineer: Carney, Jonathan

From:	Adkins, Sandra K
Sent:	Tuesday, January 24, 2017 1:09 PM
To:	'craigneal@consolenergy.com'; Jesse Hanshaw
Cc:	McKeone, Beverly D; Carney, Jonathan W; Rice, Jennifer L
Subject:	WV DAQ Permit Application Status for Dominion Exploration & Production; Rohrbaugh Station

RE: Application Status
Dominion Exploration & Production
Rohrbaugh Station
Facility ID No. 041-00051
Application No. R13-3357

Mr. Neal,

Your application for a construction permit for the Rohrbaugh Station was received by this Division on January 23, 2017, and was assigned to Jon Carney. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Jon stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Jon Carney, at 304-926-0499, extension 1203.

Our records indicate the name associated with facility id 041-00051 is Dominion Exploration & Production; however, on the application the name is CNX Gas Company, LLC. Please refer to the Change of Ownership section on our website:

http://www.dep.wv.gov/daq/permitting/Pages/Change-of-Ownership.aspx

after-the-fact 041-00051 Construction
R13-3357 ~~David~~ Jon

45CSR13 Administrative Update, Construction, Modification, Relocation, Temporary Permit or General Permit Registration Incomplete Application

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a 45CSR13 permit application. Any submittal will be considered incomplete if the required information is not included. The applicant must submit a complete application in order to receive a 45CSR13 permit.

☒ Class I legal advertisement not published in a newspaper certified to accept legal advertisements and original affidavit submitted.

☐ Application fee AND/OR additional application fees not included:
- ☐ $250 Class I General Permit
- ☐ $300 Class II Administrative Update
- ☐ $1,000 Construction, Modification, Relocation or Temporary Permit
- ☐ $500 Class II General Permit
- ☐ $1,000 NSPS
- ☐ $2,500 NESHAP
- ☐ $2,500 45CSR27 Pollutant
- ☐ $5,000 Major Modification
- ☐ $10,000 Major Construction

☐ Original and two (2) copies of the application not submitted.

☐ File organization – application pages are not numbered or in correct order, application is not bound in some way, etc.

☐ Confidential Business Information is not properly identified.

☐ General application forms not completed and signed by a responsible official.

☐ Authority of Corporation form not included – required if application is signed by someone other than a responsible official.

☐ Applicant is not registered with the West Virginia Secretary of State's Office.

☐ Copy of current Business Registration Certificate not included.

☐ Process description, including equipment and emission point identification numbers, not submitted.

☐ Process flow diagram, including equipment and emission point identification numbers, not submitted.

☐ Plot plan, including equipment and emission point identification numbers, not submitted.

☐ Applicable technical forms not completed and submitted:

- ☐ Emission Point Data Summary Sheets
- ☐ Air Pollution Control Device Sheets
- ☐ Emission Unit Data Sheets
- ☐ Equipment List Form

☐ Emission calculations not included – emission factors, references, source identification numbers, etc.

☐ Electronic submittal diskette not included.